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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/651,097	08/28/2003	Eun Seong Seo	2080-3-179	7715

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EXAMINER

BLACKMAN, ROCHELLE ANN J

ART UNIT PAPER NUMBER

2851

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/651,097

Applicant(s)

SEO ET AL.

Examiner

Rochelle Blackman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to claims 12-19 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 12, 14, 15, 17, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (U.S. Patent Application Publication No. 2001/0050758).

Suzuki discloses a projection system (FIGS. 44A, 77A, and 79) comprising: a projection lens (58 and 149) for enlarging and projecting an image; an optical element (60 and 162) formed of a convex mirror, the optical element positioned opposite the projection lens, re-enlarging an enlarged image through the projection lens, and reflecting the image on a predetermined position (see function of 60 in FIG. 44A and 162 in FIGS. 77A and 79); and a rear mirror (22 and 163) for displaying an reflected image through the optical element on a screen (18 and 165), the rear mirror being tilted at an angle of 90-130 degrees from a horizontal line (see position of 22 and 163); wherein the rear mirror is tilted at an angle of 90-110 degrees from a horizontal line (see

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position of 22 and 163); wherein a tilt-angle difference between the rear mirror and the screen ranges 0-40 degrees (see positions of 18 and 22 in FIG. 44A and 163 and 165 in FIGS. 77A and 79); wherein the rear mirror is a planar mirror (see 22 and 163); wherein the rear mirror is a non-spherical mirror (see 22 and 163).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 12, 14, 15, 17, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshii et al. (U.S. Patent No. 6,752,500).

Yoshii discloses a projection system (FIGS. 1 and 6) comprising: a projection lens (2) for enlarging and projecting an image; an optical element (5 of FIG. 1, 6a of FIG. 6) formed of a convex mirror, the optical element positioned opposite the projection lens, re-enlarging an enlarged image through the projection lens, and reflecting the image on a predetermined position (see function of 5 in FIG. 1 and 6a in FIG. 6); and a rear mirror (7) for displaying an reflected image through the optical element on a screen (8), the rear mirror being tilted at an angle of 90-130 degrees from a horizontal line (see position of 7); wherein the rear mirror is tilted at an angle of 90-110 degrees from a horizontal line (see position of 7); wherein a tilt-angle difference between the rear mirror

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and the screen ranges 0-40 degrees (see position of 7 and 8); wherein the rear mirror is a planar mirror (see 7); wherein the rear mirror is a non-spherical mirror (see 7).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monson et al. (U.S. Patent No. 6,388,810).

Monson discloses the claimed invention, as set forth in the previous Office action, except for an optical element formed of a convex mirror and positioned opposite the projection lens.

Monson teaches the image produced by imager 11 can be enlarged or reduced by the utilization of convex or concave mirrors as part of the display system and uses a convex mirror 13 as a rear mirror in a projector system (see FIG. 3 and col. 5, lines 14-16).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a convex mirror in place of plane mirror 12, which is positioned opposite the projection lens in the projector system of the Monsoon reference, in order to enlarge an image produced by the imager 11.

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***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rochelle Blackman whose telephone number is (571) 272-2113. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RB

A handwritten signature in black ink, appearing to read "Judy Nguyen".

JUDY NGUYEN  
PRIMARY EXAMINER